

Work Order ID 95421

95421

Page 1

January-09-13 1:33:01 PM

Item ID: D119-696-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Dual Cargo Mirror Installation

Start Date: 1/09/13

Start Qty: 2.00

2

Cust Item ID:

Required Date: 1/23/13

Req'd Qty: 2.00

2

Customer:

Reference:

Run Start

NR1

Stop

NR2

Approvals:

Process Plan: ML5

Date: 13-01-10 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

DSI9578

A

IIN-D119-696

A

0.00

100

100

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile & type labels per PPP D119-696-013 CHG006

0.00

110

110

Packaging

Packaging

Pick Kit

Packaging

Memo

0.00

0.00

ML5 1302-06

[Handwritten signatures and stamps]

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| | | | | | | | | | | | | | | | | | | |
|--|---|---|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|--|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Doc/Data <input type="checkbox"/> | | | | | | | | | |
| Equip/Tooling <input type="checkbox"/> | | | | | | | | | |
| Operator <input type="checkbox"/> | | | | | | | | | |
| Material <input type="checkbox"/> | | | | | | | | | |
| Setup <input type="checkbox"/> | | | | | | | | | |
| Other <input type="checkbox"/> | | | | | | | | | |
| Process <input type="checkbox"/> | | | | | | | | | |
| Supplier <input type="checkbox"/> | | | | | | | | | |
| Training <input type="checkbox"/> | | | | | | | | | |
| Unapproved <input type="checkbox"/> | | | | | | | | | |

FAULT CATEGORY

| | | |
|---|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio | <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|---|---|--|

Work Order ID 95421

95421

Page 2

January-09-13 1:33:01 PM

Item ID: D119-696-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Dual Cargo Mirror Installation

Start Date: 1/09/13 Start Qty: 2.00

2

Cust Item ID:

Required Date: 1/23/13 Req'd Qty: 2.00

2

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--|---|------------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 120 *120* QC Quality Control | QC4- 100% Inspect kits for completeness Memo | 0.00 0.00 13.2.6 | | | | 1 | | | |
| 130 *130* Packaging Packaging | Packaging Memo Identify and pack for shipping as per PPP D119-696-013 Location: _____ PPP Rev: <u>F</u> | 0.00 0.00 | | | | | | | |
| 140 *140* QC Quality Control | QC21- Final Inspection - Work Order Release Memo | 0.00 0.00 | | | | | | | |

13/2/6

13-02-06

13-02-06

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------------|--|---|---|-------------------|--|-------------|--------------|--|--|---|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | | | | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | | AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:25%;">Skid-tube <input type="checkbox"/></td> <td style="width:25%;">Crosstube <input type="checkbox"/></td> <td style="width:25%;">Water Jet <input type="checkbox"/></td> <td style="width:25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | | | | | | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | | | | | | | | | | | | | | | | | | |
| Doc/Data <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equip/Tooling <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operator <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Material <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Setup <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Process <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unapproved <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | | | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio | | | <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions | | | <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge | | <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other | | | | | | | | | | | | | | | | |

Picklist Print

January-09-13 1:33:00 PM

Page 1

Work Order ID: 95421

Parent Item: D119-696-013

Parent Item Name: Dual Cargo Mirror Installation

Start Date: 1/09/13

Required Date: 1/23/13

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 08-02-19 New issue DD verified by: LL IPP REV:B 11.01.19 AS PER
CHG005 DD VERF:EC IPP REV:C 11.11.14 AS PER CHG006 DD VERF:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|-----------------|-------------|--------------|---------------|----------------|--------|
| ALS4-1032-130 Insert | | Purchased | No | | | 110 | Each | 10,045.000 | 2 | 4 | | | |
| | | | | <u>Location</u> | | <u>Loc Qty</u> | | <u>Loc Code</u> | | | | | |
| | | | | FP001 | | 389 | | | | | | | |
| | | | | 119084 | | 116 | | | | | | | |
| | | | | 120671 | | 89 | | | | | | | |
| | | | | 120807 | | 36 | | | | | | | |
| | | | | 120837 | | 8 | | | | | | | |
| | | | | 121269 | | 140 | | | | | | | |
| | | | | ST279 | | 2969 | | | | | | | |
| | | | | 124080 | | 2969 | | | 124080 | | | | |
| | | | | st510 | | 6687 | | | | | | | |
| | | | | 124163 | | 6687 | | | | | | | |
| AN526-1032R9 Screw | | Purchased | No | | | 110 | Each | 100.0000 | 4 | 8 | | 1/12/1060 | |
| | | | | <u>Location</u> | | <u>Loc Qty</u> | | <u>Loc Code</u> | | | | | |
| | | | | 123831 | | 100 | | | | | | | |
| | | | | 123831 | | 100 | | | | | | | |
| AN960JD10 Washer | NAS1149D0363J | Purchased | No | | | 110 | Each | 0.0000 | 4 | 8 | | 1/12 3300 | |
| D119-696-043 Dual Cargo Mirror Assy, 6 inch Round | | Manufactured | No | | | 110 | Each | 0.0000 | 1 | 2 | | 95426 | |
| D2053 Mounting Bracket | | Manufactured | No | | | 110 | Each | 30.0000 | 1 | 2 | | 13/2/16 | |
| | | | | <u>Location</u> | | <u>Loc Qty</u> | | <u>Loc Code</u> | | | | | |
| | | | | ST004 | | 30 | | | | | | | |
| | | | | 79466 | | 7 | | | 79466 | | | | |
| | | | | 89271 | | 23 | | | | | | | |

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| | | | | | | | | | | | | | | | | | | |
|--|---|---|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|--|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Doc/Data <input type="checkbox"/> | | | | | | | | | |
| Equip/Tooling <input type="checkbox"/> | | | | | | | | | |
| Operator <input type="checkbox"/> | | | | | | | | | |
| Material <input type="checkbox"/> | | | | | | | | | |
| Setup <input type="checkbox"/> | | | | | | | | | |
| Other <input type="checkbox"/> | | | | | | | | | |
| Process <input type="checkbox"/> | | | | | | | | | |
| Supplier <input type="checkbox"/> | | | | | | | | | |
| Training <input type="checkbox"/> | | | | | | | | | |
| Unapproved <input type="checkbox"/> | | | | | | | | | |

FAULT CATEGORY

| | | |
|---|---|--|
| Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube | General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio | <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other |
|---|---|--|

Picklist Print

January-09-13 1:33:00 PM

Page 2

Work Order ID: 95421

Parent Item: D119-696-013

Parent Item Name: Dual Cargo Mirror Installation

Start Date: 1/09/13

Required Date: 1/23/13

Start Qty: 2.00

Required Qty: 2.00

D2067

Connector

SMP

Manufactured No

110 Each 28.0000

Location

Loc Qty

Loc Code

ST004

28

85517

28

85517

D2071

Cable Assembly

SMP

Manufactured No

110 Each 9.0000

Location

Loc Qty

Loc Code

FG

2

71206

2

ST222

7

74112

7

74112

D3083-1

Placard

SMP

Manufactured No

110 Each 15.0000

Location

Loc Qty

Loc Code

ST025

15

61893

15

61893

MS21919-DGS

Clamp

SMP

Purchased No

110 Each 45.0000

Location

Loc Qty

Loc Code

ST321

45

122807

45

122807

MS27039-1-09

Screw

SMP

Purchased No

110 Each 426.0000

Location

Loc Qty

Loc Code

FP001

80

18057

80

GA

50

111650

50

ST305

96

122814

96

ST508

200

124093

200

122814

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Shop Packet Print

Page 2

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| | | | | | | | | | | | |
|--|-------------|-------------|---|---|--------------------------|---|------------------------|---------------------|---|--|--|
| Work Order: _____ Part No. _____ NCR No. _____ | | | | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | | AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div> | | | | | |
| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector | | |
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| Equip/Tooling <input type="checkbox"/> | | | | | | | | | | | |
| Operator <input type="checkbox"/> | | | | | | | | | | | |
| Material <input type="checkbox"/> | | | | | | | | | | | |
| Setup <input type="checkbox"/> | | | | | | | | | | | |
| Other <input type="checkbox"/> | | | | | | | | | | | |
| Process <input type="checkbox"/> | | | | | | | | | | | |
| Supplier <input type="checkbox"/> | | | | | | | | | | | |
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| Unapproved <input type="checkbox"/> | | | | | | | | | | | |
| FAULT CATEGORY | | | | | | | | | | | |
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Picklist Print

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Page 3

Work Order ID: 95421

Parent Item: D119-696-013

Parent Item Name: Dual Cargo Mirror Installation

Start Date: 1/09/13

Required Date: 1/23/13

Start Qty: 2.00

Required Qty: 2.00

MS35489-9
Grommet

Purchased

No

110

Each

31.0000



2-

1/43/2/6 0
86

Sm

Location

Loc Qty

Loc Code

ST289A

31

107376

31

107376

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| | | | | | | | | | | | | | | | | | | |
|--|---|---|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--|----------------------------------|--|------------------------------------|--|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____ Part No. _____ NCR No. _____ | DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/> | AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> | Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | |
| Skid-tube <input type="checkbox"/> | Crosstube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | | | | | | | | | | | | | | | |
| Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> | | | | | | | | | | | | | | | | |

| Root Cause | Date | Step | Qty | Description of work order update or Non-conformance | Initial Chief Eng | Action Description | Sign & Date | Verification | QC Inspector |
|---------------|------|------|-----|---|-------------------|--------------------|-------------|--------------|--------------|
| Doc/Data | | | | | | | | | |
| Equip/Tooling | | | | | | | | | |
| Operator | | | | | | | | | |
| Material | | | | | | | | | |
| Setup | | | | | | | | | |
| Other | | | | | | | | | |
| Process | | | | | | | | | |
| Supplier | | | | | | | | | |
| Training | | | | | | | | | |
| Unapproved | | | | | | | | | |

FAULT CATEGORY

| Landing Gear | General | Other | Other |
|---|---|--|---|
| <input type="checkbox"/> Bending | <input type="checkbox"/> Bend | <input type="checkbox"/> Grain | <input type="checkbox"/> Ovalized |
| <input type="checkbox"/> Centre Not Concentric to O/S | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Hardware | <input type="checkbox"/> Over/Under tolerance |
| <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damaged | <input type="checkbox"/> Inspection Incomplete | <input type="checkbox"/> Part Incorrect |
| <input type="checkbox"/> Crushed/Crimped | <input type="checkbox"/> Burrs | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Part Lost/Missing |
| <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Maintenance | <input type="checkbox"/> Part Moved |
| <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Countersink | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Positioned Wrong |
| <input type="checkbox"/> Inspection Strip in Tube | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Misread | <input type="checkbox"/> Power Loss/Surge |
| <input type="checkbox"/> Ripples in Bend | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Offset | <input type="checkbox"/> Pressure/Forced |
| <input type="checkbox"/> Torque Waves in Extrusion | <input type="checkbox"/> Drawing | <input type="checkbox"/> Out of Calibration | <input type="checkbox"/> Temperature/Cure |
| <input type="checkbox"/> Turning Sequence | <input type="checkbox"/> Finish | <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Weld |
| <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Folio | <input type="checkbox"/> Outside Dimensions | <input type="checkbox"/> Wrong Stock Pulled |
| | | | <input type="checkbox"/> Other |

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D119-696 REV. A AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D119-696 REV. 0

REF FAA STC: SR01043SE

REF TC LETTERS OF ACCEPTANCE: C-11-0119/-0120/-0121

REF EASA STC: EASA.IM.R.S.01551

PURPOSE

This service instruction details the D119-696-011/-013 Cargo Mirror Installations at CHG 006 which have been improved with D4450-1/-043 Arm/Arm Assembly. The D4450-1/-043 replaces D3074-1/-3 and feature a more robust and ergonomic design. Customers/operators who wish to upgrade existing D119-696-011/-013 Cargo Mirror Installations at earlier change numbers may procure the DSI-9578-011/-013 Kit from Dart. The revised weight and balance and parts list on page 2 of this service instruction are to be used for D119-696-011/-013 Cargo Mirror Installations at CHG 006.

INSTALLATION

Replacement of D3074-1 arm on D119-696-011 Single Mirror Installation:

1. Remove and discard existing D3074-1 Arm and existing D2057 Plug.
2. Install D4450-1 Arm and replacement D2057 Plug in accordance with Figure 1 of this service instruction.
3. Install D2011-101 Mirror to D4450-1 Arm using D3014-1 Locknut as shown in Figure 1 of this service instruction.

Replacement of D3074-3 Arm on D119-696-013 Dual Mirror Installation:

1. Remove and discard the existing D3074-3 Arm and associated parts/hardware. Note that the D3074-3 Arm also includes 2 X D2052 Brackets, 2 X D2055 Clamps, a D2056 Bellcrank, 2 X D2054 Bushings, and attaching hardware.
2. Install D4450-043 Arm Assembly in accordance with Figure 1 of this service instruction.
3. Install 2 X D2011-101 Mirrors to D4450-043 Arm Assembly using D3014-1 Locknuts as shown in Figure 1 of this service instruction.

MAINTENANCE AND CONTINUED AIRWORTHINESS

Inspection requirements for D4450-1/-043 Arm are identical to D3074-1/-3 Arm they are replacing. Refer to ICA-D119-696.

WEIGHT AND BALANCE

| Installation | Weight | LATERAL | | LONGITUDINAL | |
|-------------------------------------|---------|---------|------------|--------------|------------|
| | | Arm | Moment | Arm | Moment |
| D119-696-011 | 2.3 lb | 7.0 in | 16.1 in-lb | 22.0 in | 50.6 in-lb |
| Cargo Mirror Installation (CHG 006) | 1.04 kg | 0.18 m | 0.19 m-kG | 0.56 m | 0.58 m-kG |
| D119-696-013 | 3.2 lb | 1.0 in | 3.2 in-lb | 22.0 in | 70.4 in-lb |
| Cargo Mirror Installation (CHG 006) | 1.45 kg | 0.03 m | 0.04 m-kG | 0.56 m | 0.81 m-kG |

| | | | |
|------------|-----------|--|--------------|
| A | NEW ISSUE | MB | 11.10.04 |
| REV. | | BY | DATE |
| DESIGN | | DART AEROSPACE USA, INC | |
| DRAWN | | KENT, WA | |
| CHECKED | | DRAWING NO. | REV. A |
| MFG. APPR. | | DSI 9578 | SHEET 1 OF 3 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | MIRROR ARM UPGRADE | NTS |
| DATE | 11.10.04 | COPYRIGHT © 2011 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

UNCONTROLLED
SUBJECT TO
REVISION
NO. 9578-011
13-01-10

PARTS LIST

| Qty -011 | Qty -013 | Qty -041 | Qty -043 | Part Number | Description |
|-------------|-------------|-------------|-------------|---------------|---|
| X | | | | D119-696-011 | SINGLE CARGO MIRROR INSTALLATION |
| | X | | | D119-696-013 | DUAL CARGO MIRROR INSTALLATION |
| 1 | | X | | D119-696-041 | SINGLE CARGO MIRROR ASSEMBLY |
| | 1 | | X | D119-696-043 | DUAL CARGO MIRROR ASSEMBLY |
| | | 1 | 2 | D2011-101 | MIRROR ASSEMBLY |
| 1 | 1 | | | D2053 | BRACKET |
| | | 2 | **2 | D2054 | BUSHING |
| | | 2 | **2 | D2055 | CLAMP |
| | | 1 | **1 | D2056 | BELL CRANK |
| | | 1 | | D2057 | PLUG |
| 1 | 1 | | | D2067 | CONNECTOR |
| 1 | 1 | | | D2071 | CABLE ASSEMBLY |
| | | *1 | *2 | D3014-1 | LOCKNUT |
| | | 1 | **1 | D3072-1 | BRACKET |
| | | 1 | **1 | D3072-2 | BRACKET |
| 1 | 1 | | | D3083-1 | PLACARD |
| | | 1 | | D4450-1 | ARM (WAS D3074-1) |
| | | | 1 | D4450-043 | ARM ASSEMBLY (WAS D3074-3) |
| 4 | 4 | | | AN526-1032R9 | SCREW |
| 4 | 4 | 6 | **6 | AN960JD10 | WASHER |
| | | *1 | *2 | AN960JD416L | WASHER |
| | | 3 | **3 | MS21042L3 | NUT (or MS21042-3) |
| 2 | 2 | | | MS21919DG5 | CLAMP |
| 4 | 4 | | | MS27039-1-09 | SCREW |
| | | 3 | **3 | MS27039-1-18 | SCREW |
| 1 | 1 | | | MS35489-9 | GROMMET |
| 2 | 2 | | | AKS7-1032-130 | INSERT (or ALS7-1032-130 or AKS4-1032-130 or ALS7-1032-130 or AELS-032-130) |

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

** INCLUDED WITH D4450-043 ARM

| Qty -011 | Qty -013 | Part Number | Description |
|-------------|-------------|--------------|--|
| X | | DSI-9578-011 | MIRROR ARM UPGRADE KIT (SINGLE CARGO MIRROR INSTALLATION) |
| | X | DSI-9578-013 | MIRROR ARM UPGRADE KIT (DUAL CARGO MIRROR INSTALLATION) |
| | **2 | D2054 | BUSHING |
| | **2 | D2055 | CLAMP |
| | **1 | D2056 | BELL CRANK |
| 1 | | D2057 | PLUG |
| | **1 | D3072-1 | BRACKET |
| | **1 | D3072-2 | BRACKET |
| 1 | | D4450-1 | ARM |
| | 1 | D4450-043 | ARM ASSEMBLY |
| | **6 | AN960JD10 | WASHER |
| | **3 | MS21042L3 | NUT (or MS21042-3) |
| | **3 | MS27039-1-18 | SCREW |

** INCLUDED WITH D4450-043 ARM

| | | | |
|------------|----------|--|--------------|
| DESIGN | LA | DART AEROSPACE USA, INC | |
| DRAWN | JP | KENT, WA | |
| CHECKED | NA | DRAWING NO. | REV. A |
| MFG. APPR. | NA | DSI 9578 | SHEET 2 OF 3 |
| APPROVED | NA | TITLE | SCALE |
| DE APPR. | NA | MIRROR ARM UPGRADE | NTS |
| DATE | 11.10.04 | <small>COPYRIGHT © 2011 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

95421

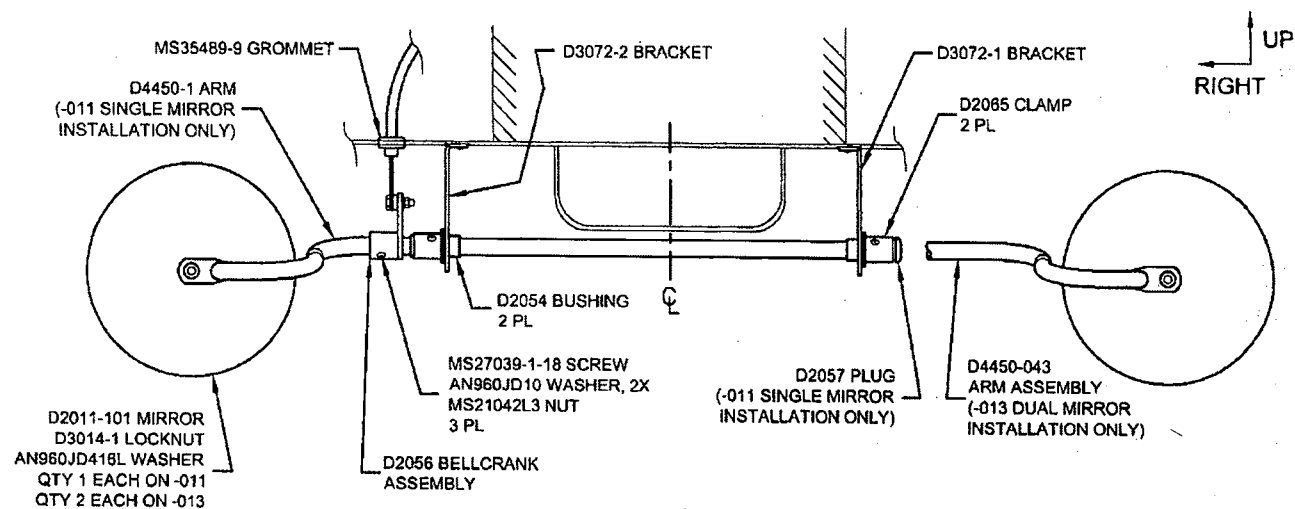


FIGURE 1

D119-696-011/-013 SINGLE/DUAL MIRROR INSTALLATION

| | | |
|------------|----------|---|
| DESIGN | | DART AEROSPACE USA, INC KENT, WA |
| DRAWN | | |
| CHECKED | | |
| MFG. APPR. | | |
| APPROVED | | |
| DE APPR. | | |
| DATE | 11.10.04 | |
| | | DRAWING NO. DSI 9578 TITLE MIRROR ARM UPGRADE REV. A SHEET 3 OF 3 SCALE NTS |

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 NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

9212

4. WEIGHT AND BALANCE

| Installation | Weight | LATERAL | | LONGITUDINAL | |
|---------------------------|---------|---------|------------|--------------|------------|
| | | Arm | Moment | Arm | Moment |
| D119-696-011 | 2.2 lb | 7.0 in | 15.4 in-lb | 22.0 in | 48.4 in-lb |
| Cargo Mirror Installation | 1.00 kg | 0.28 m | 0.28 m-kg | 0.87 m | 0.87 m-kg |
| D119-696-013 | 3.0 lb | 1.0 in | 3.0 in-lb | 22.0 in | 66.0 in-lb |
| Cargo Mirror Installation | 1.36 kg | 0.04 m | 0.05 m-kg | 0.87 m | 1.18 m-kg |

5. PARTS LIST

| Qty -011 | Qty -013 | Qty -041 | Qty -043 | Part Number | Description |
|----------|--------------|----------|----------|---------------|---|
| X | | | | D119-696-011 | SINGLE CARGO MIRROR INSTALLATION |
| | X | | | D119-696-013 | DUAL CARGO MIRROR INSTALLATION |
| 1 | | X | | D119-696-041 | SINGLE CARGO MIRROR ASSEMBLY |
| | 1 | | X | D119-696-043 | DUAL CARGO MIRROR ASSEMBLY |
| | | 1 | 2 | D2011-101 | MIRROR ASSEMBLY |
| 1 | 1 | | | D2053 | BRACKET |
| | | 2 | 2 | D2054 | BUSHING |
| | | 2 | 2 | D2055 | CLAMP |
| | | 1 | 1 | D2056 | BELL CRANK |
| | | 1 | | D2057 | PLUG |
| 1 | 1 | | | D2067 | CONNECTOR |
| 1 | 1 | | | D2071 | CABLE ASSEMBLY |
| | | 1 | 2 | *D3014-1 | LOCKNUT |
| | | 1 | 1 | D3072-1 | BRACKET |
| | | 1 | 1 | D3072-2 | BRACKET |
| | | 1 | | D3074-1 | ARM |
| | | | 1 | D3074-3 | ARM |
| 1 | 1 | | | D3083-1 | PLACARD |
| 4 | 4 | | | AN526-1032R9 | SCREW |
| 4 | 4 | 6 | 6 | AN960JD10 | WASHER |
| | | 1 | 2 | *AN960JD416L | WASHER |
| | | 3 | 3 | MS21042L3 | NUT (or MS21042-3) |
| 2 | 2 | | | MS21919DG5 | CLAMP |
| 4 | 4 | | | MS27039-1-09 | SCREW |
| | | 3 | 3 | MS27039-1-18 | SCREW |
| 1 | 1 | | | MS35489-9 | GROMMET |
| 2 | 2 | | | AKS7-1032-130 | INSERT (or ALS7-1032-130 or AKS4-1032-130 or ALS7-1032-130 or AELS-032-130) |

*INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY